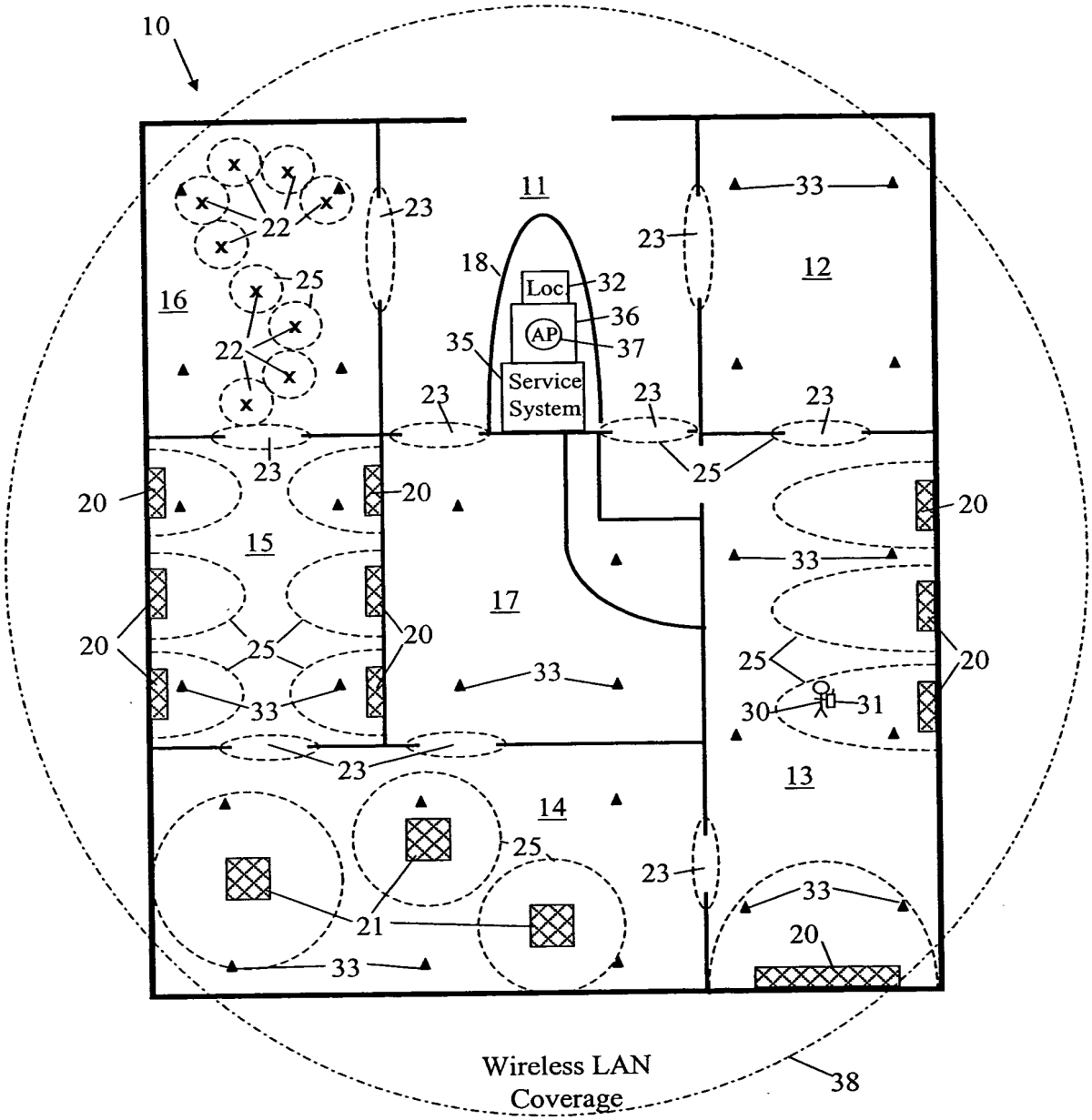

10
11
12
13
14
15
16
17
18
Loc
32
AP
36
37
35
Service System
22
25
23
33
20
21
30
31
Wireless LAN Coverage
38

Figure 1

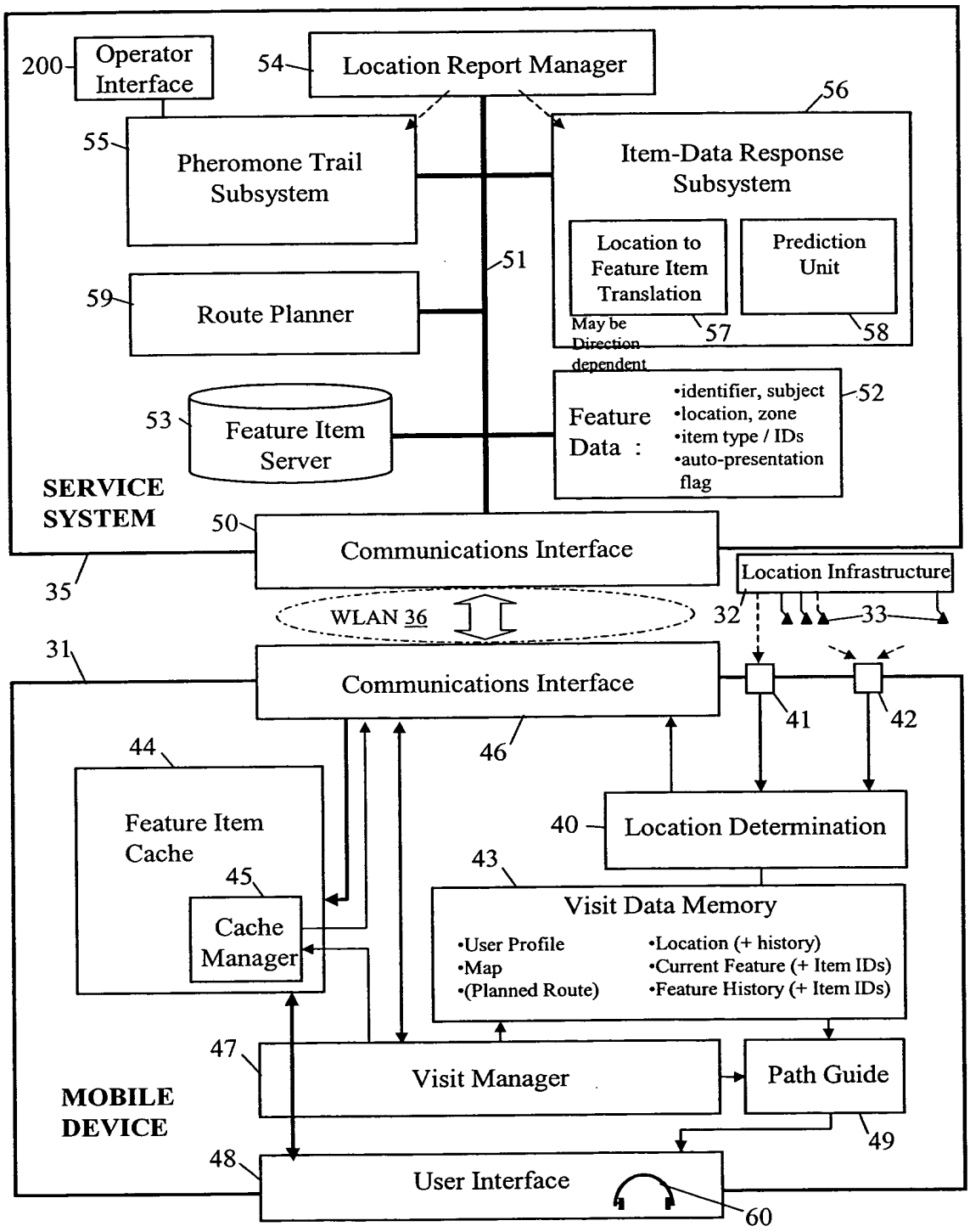

200
Operator Interface
54
Location Report Manager
56
55
Pheromone Trail Subsystem
Item-Data Response Subsystem
Location to Feature Item Translation
Prediction Unit
51
59
Route Planner
May be Direction dependent
57
58
53
Feature Item Server
Feature Data :
•identifier, subject
•location, zone
•item type / IDs
•auto-presentation flag
52
SERVICE SYSTEM
50
Communications Interface
Location Infrastructure
35
WLAN 36
32
33
31
Communications Interface
41
42
44
46
Feature Item Cache
40
Location Determination
43
45
Cache Manager
Visit Data Memory
•User Profile
•Map
•(Planned Route)
•Location (+ history)
•Current Feature (+ Item IDs)
•Feature History (+ Item IDs)
47
Visit Manager
Path Guide
MOBILE DEVICE
49
48
User Interface
60

Figure 2

Location Report 62

User Identity	Location	Profile Data	Prediction-Assist Data

Figure 3

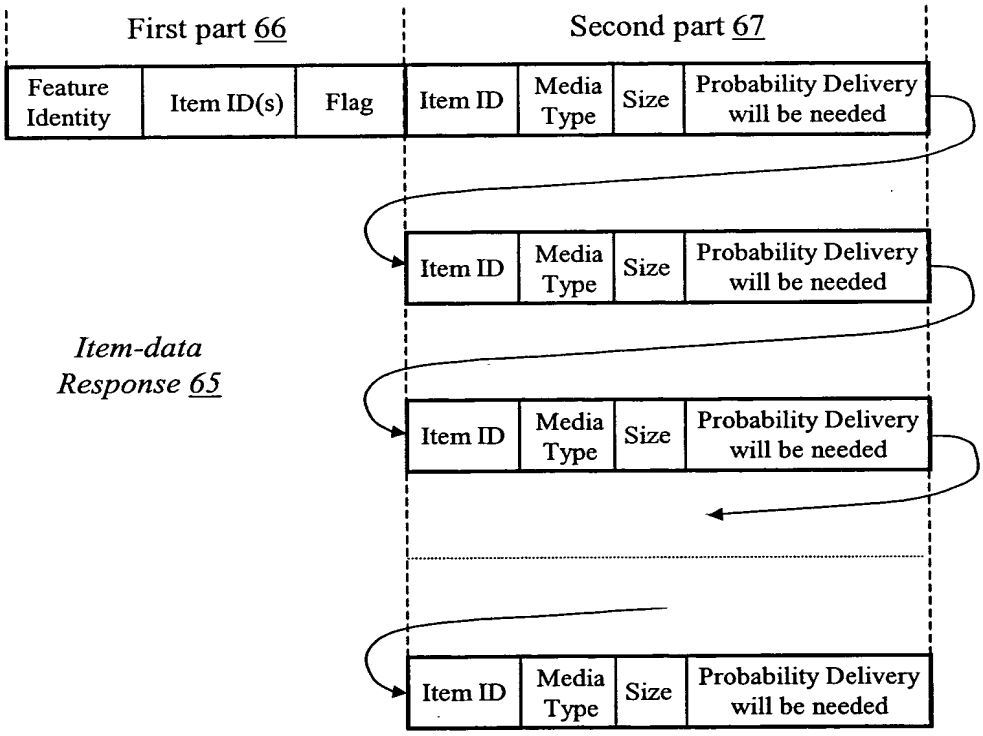


Figure 4

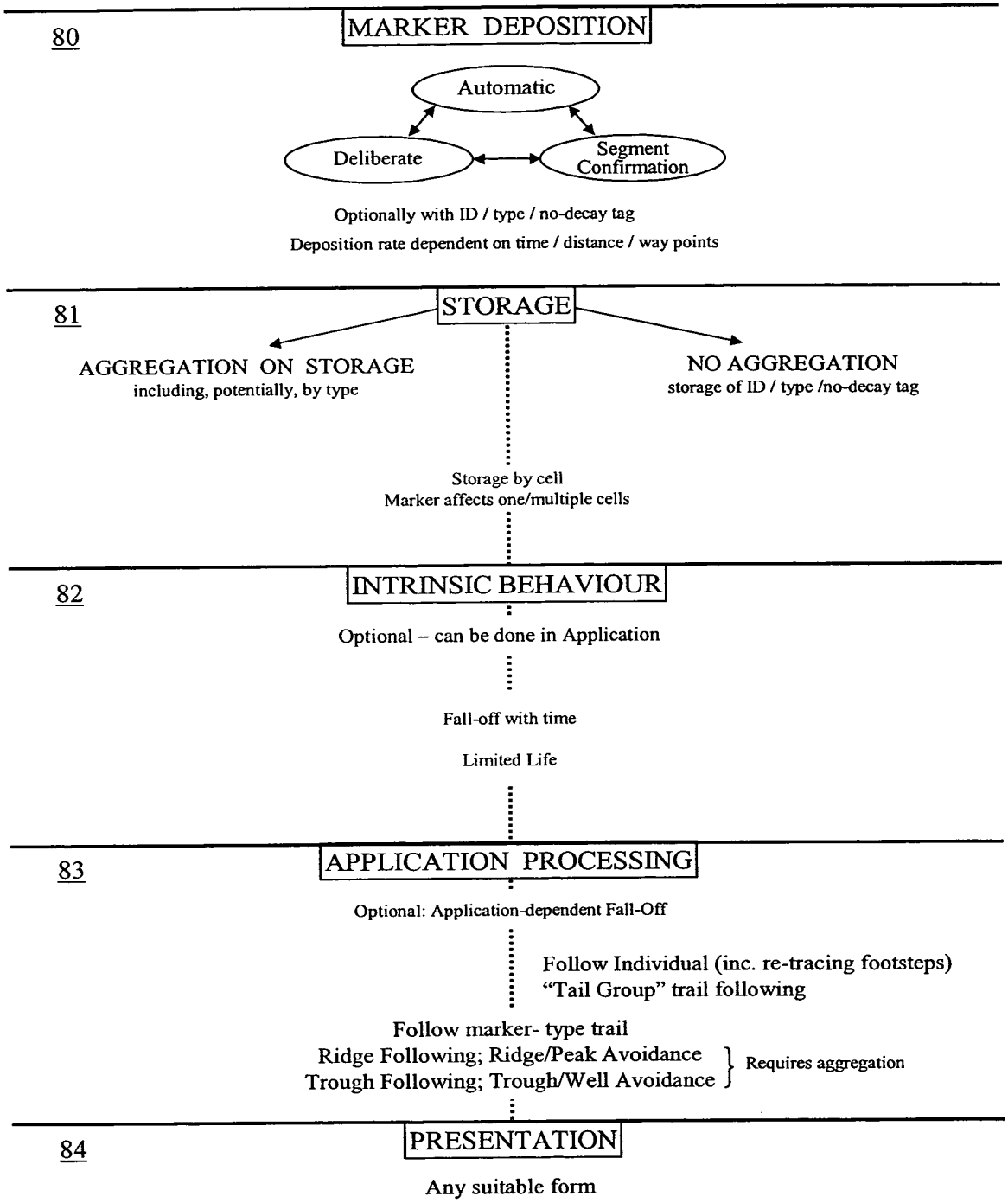

80
MARKER DEPOSITION
Automatic
Deliberate
Segment Confirmation
Optionally with ID / type / no-decay tag
Deposition rate dependent on time / distance / way points
81
STORAGE
AGGREGATION ON STORAGE
including, potentially, by type
NO AGGREGATION
storage of ID / type /no-decay tag
Storage by cell
Marker affects one/multiple cells
82
INTRINSIC BEHAVIOUR
Optional – can be done in Application
Fall-off with time
Limited Life
83
APPLICATION PROCESSING
Optional: Application-dependent Fall-Off
Follow Individual (inc. re-tracing footsteps)
"Tail Group" trail following
Follow marker- type trail
Ridge Following; Ridge/Peak Avoidance
Trough Following; Trough/Well Avoidance
Requires aggregation
84
PRESENTATION
Any suitable form

Figure 5

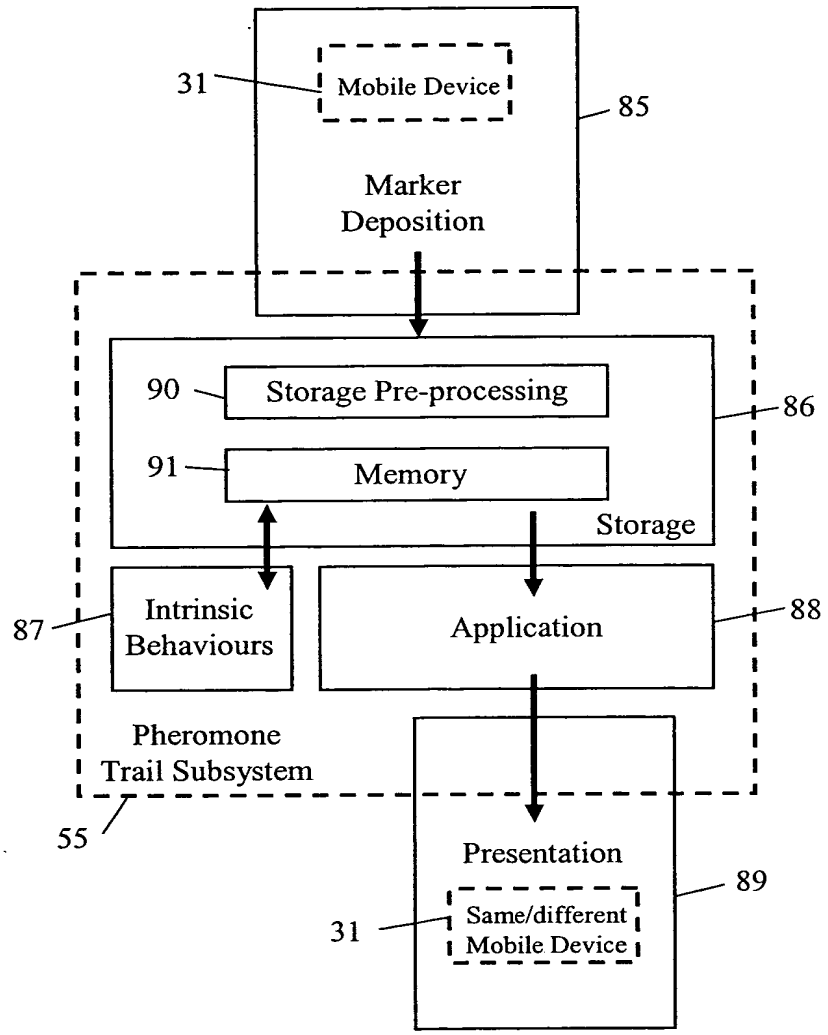

31
Mobile Device
85
Marker
Deposition
90
Storage Pre-processing
86
91
Memory
Storage
87
Intrinsic
Behaviours
Application
88
Pheromone
Trail Subsystem
55
Presentation
89
31
Same/different
Mobile Device

Figure 6

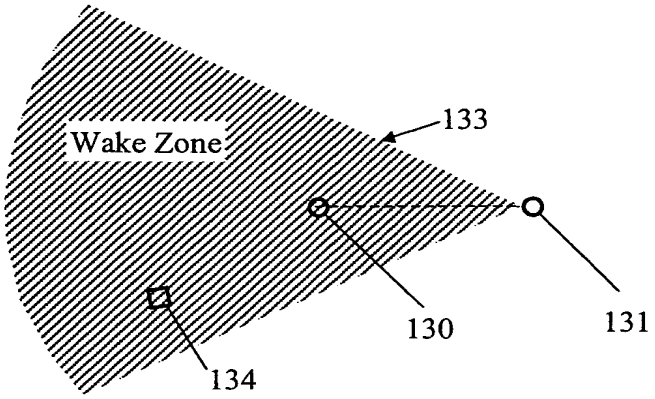


Figure 7

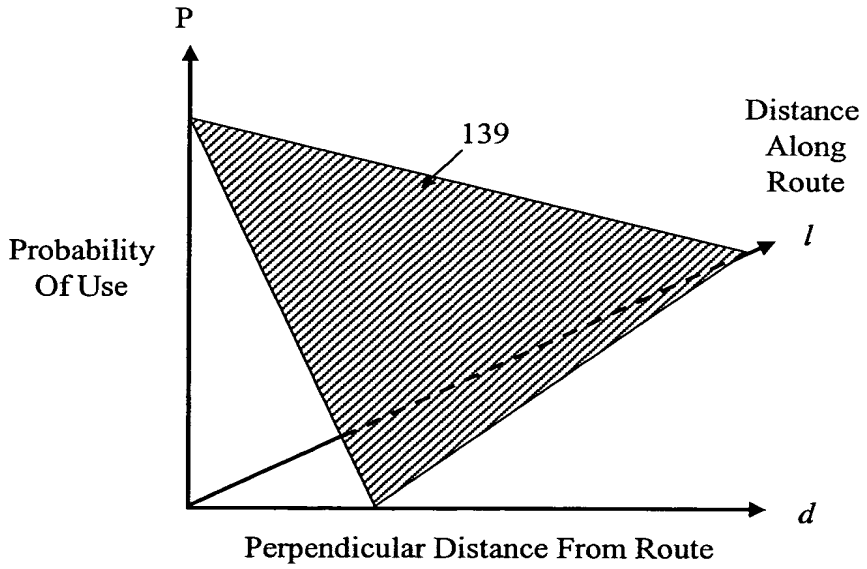
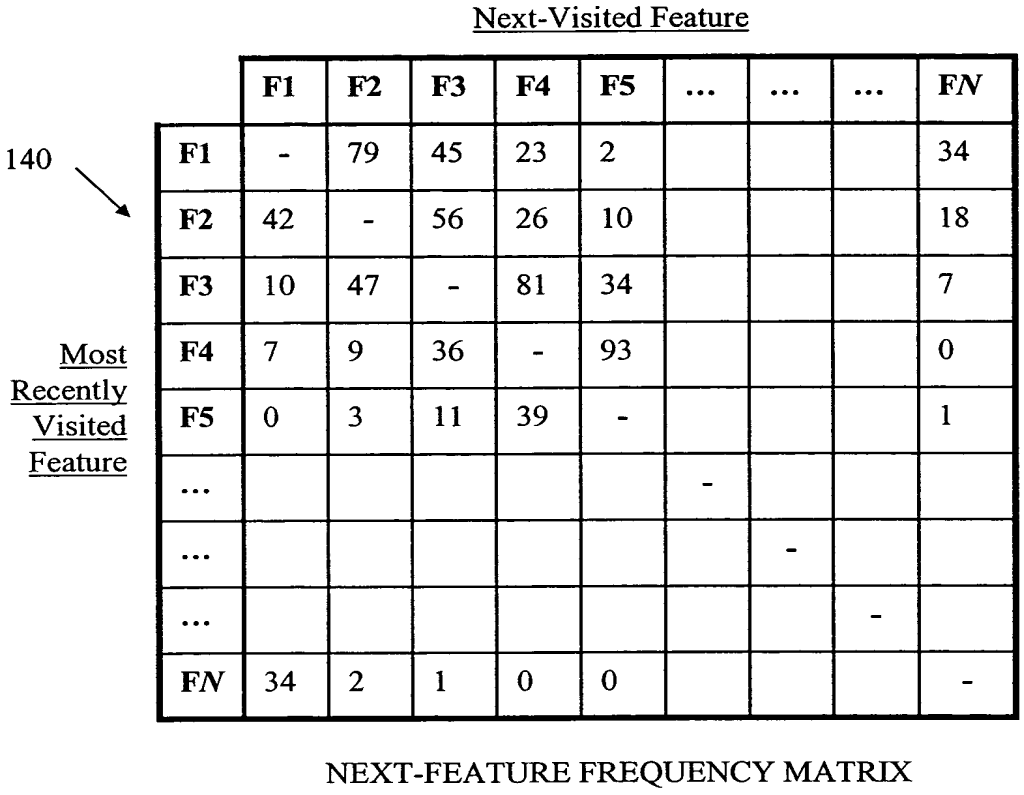


Figure 8



	F1	F2	F3	F4	F5	...	...	...	FN
F1	-	79	45	23	2				34
F2	42	-	56	26	10				18
F3	10	47	-	81	34				7
F4	7	9	36	-	93				0
F5	0	3	11	39	-				1
...						-			
...							-		
...								-	
FN	34	2	1	0	0				-

NEXT-FEATURE FREQUENCY MATRIX

Figure 9

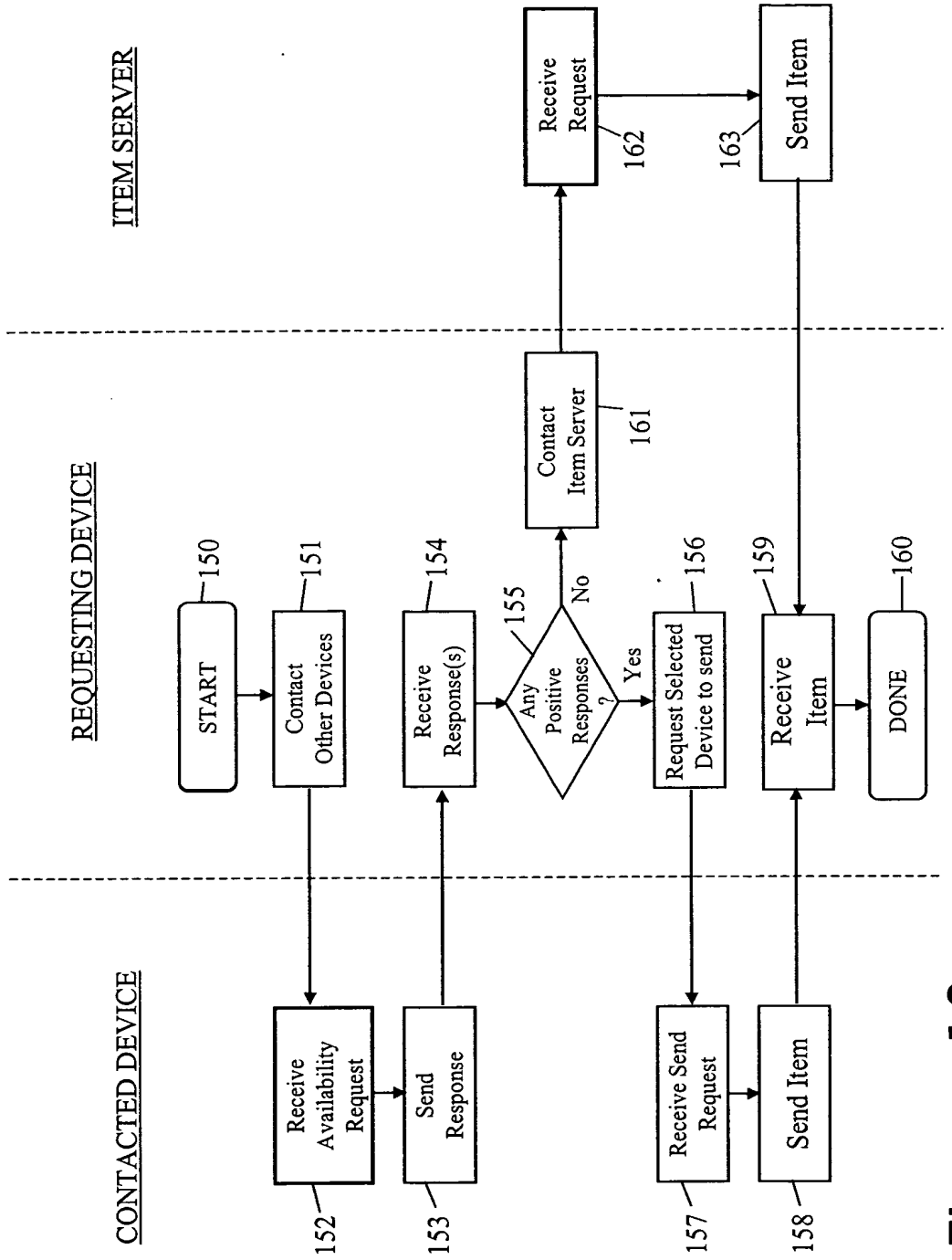
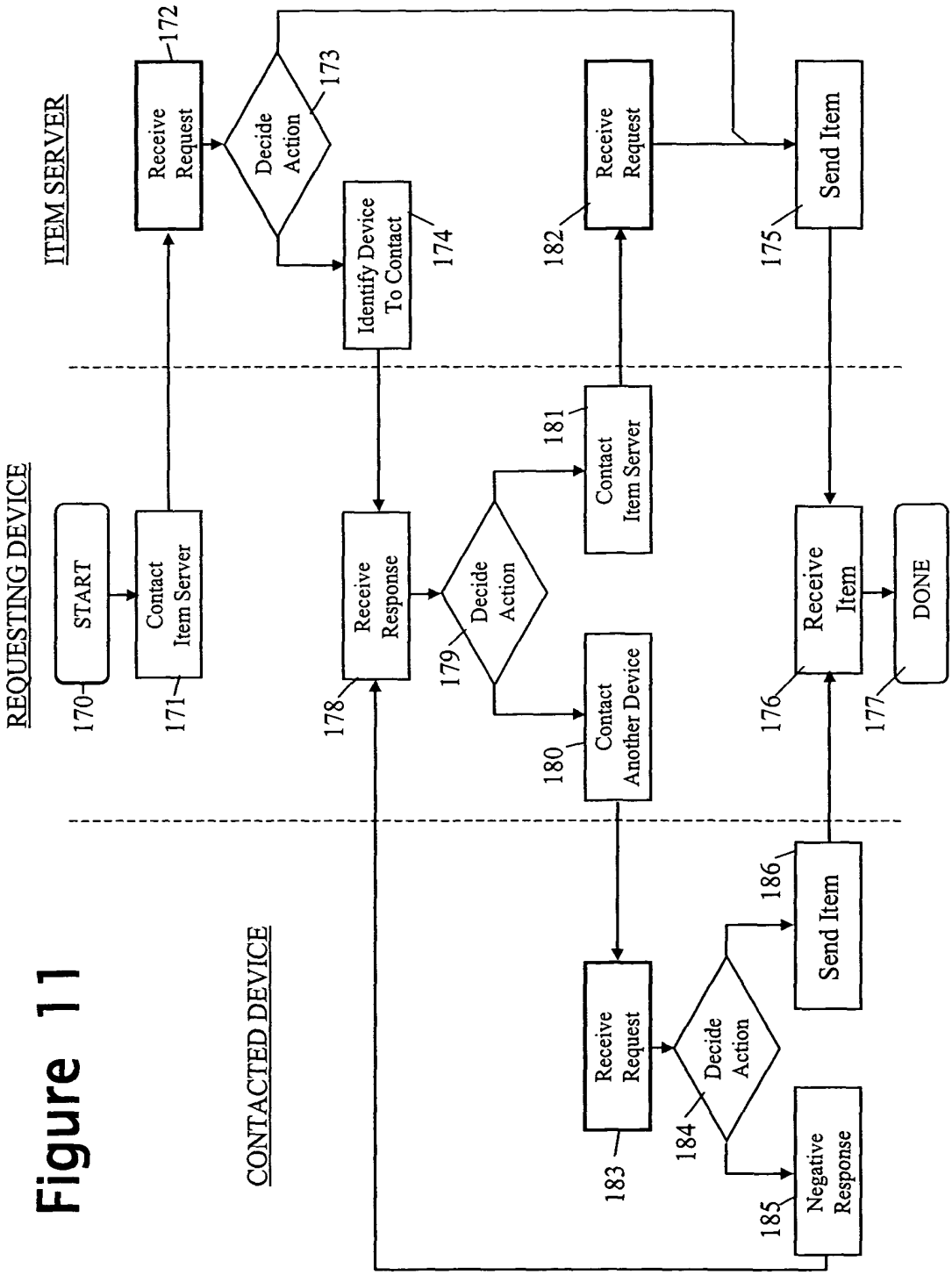

ITEM SERVER
REQUESTING DEVICE
CONTACTED DEVICE
START
150
Contact Other Devices
151
Receive Availability Request
152
Send Response
153
Receive Response(s)
154
Any Positive Responses ?
155
No
Yes
Contact Item Server
161
Receive Request
162
Send Item
163
Request Selected Device to send
156
Receive Send Request
157
Send Item
158
Receive Item
159
DONE
160

Figure 10

Figure 11


REQUESTING DEVICE
ITEM SERVER
CONTACTED DEVICE
START
170
Contact Item Server
171
Receive Request
172
Decide Action
173
Identify Device To Contact
174
Send Item
175
Receive Item
176
DONE
177
Receive Response
178
Decide Action
179
Contact Another Device
180
Contact Item Server
181
Receive Request
182
Receive Request
183
Decide Action
184
Negative Response
185
Send Item
186